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ABSTRACT

An increasing number of high school programs are turning toward activities outside the classroom as a source of student learning experiences. One form of organization for such learning is Experience-Based Career Education (EBCE), which provides a link between the academic classroom and vocational education through the use of a "resource pool" of community participants. This study focuses on the resource pools of three schools that decided to implement high fidelity EBCE programs. The main objectives of the study were to increase knowledge about the nature of resource pools and analyze their effectiveness as learning environments. It also demonstrated techniques for locating worthwhile data about such resource pools and helped identify areas where more information is needed. Among results of the study were the findings that resource persons and resource organizations will maintain interest in the program over time, and that underutilization of resources frequently exists. (Author/JG)

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UTILITY OF COMMUNITY-BASED LEARNING RESOURCES

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More and more schools are turning to their communities as sources of rich learning opportunities for students. A number of programs, such as Work Experience Education, Cooperative Education, and Vocational Education, use the people and organizations that live and work around the schools to help students acquire needed career and job skills and knowledge. Experience-Based Career Education (EBCE), a link between the academic classroom and vocational education, offers another approach for using community resources.

EBCE was developed under the auspices of the National Institute of Education after a series of feasibility studies funded by the U.S. Office of Education. Four regional educational laboratories were selected to develop the EBCE concept into a program for high school students. Far West Laboratory for Educational Research and Development (FWL) is one of the laboratories that has developed and tested a model EBCE program over the last five years.*

The Far West model calls those individuals and organizations in the community who volunteer to participate in EBCE a "resource pool." Relationships between students and members of the resource pools are usually on a one-to-one basis and take place almost entirely at resource sites that are located at some distance from the school. Most communications between school staff and resources are also on a one-to-one basis and usually take place away from the school setting.

Because the resource pools are loose networks of people and organizations, there are inherent problems in collecting group information about their characteristics and activities. Questions of concern to persons interested in using the community as a learning resource center on two general topics: "What does the resource pool look like?", and "Does it work?" This study was undertaken to answer those and related questions, including:

- Who participated as a resource?
- What activities took place at the sites?

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*The other three laboratories are: Appalachia Educational Laboratory in Charleston, West Virginia; Northwest Regional Educational Laboratory in Portland, Oregon; and Research for Better Schools in Philadelphia, Pennsylvania. Information about the four models of EBCE can be obtained by writing one of the laboratories or by contacting the Education and Work Group, National Institute of Education, Washington, D.C. 20208.

- How much time did students spend with resources?
- How much time did resources contribute to the program?
- How did participants feel about the program?
- How did students feel about the resource site activities?

Interest in these questions was well expressed by a professional consultant who, while examining EBCE data files, commented that although he had been sure there were students and staff in the program, he hadn't been too sure the resources "really existed."

This study focused on the resource pools of three schools that decided to implement high fidelity EBCE programs. The main objectives of the study were to increase knowledge about the nature of resource pools and analyze their effectiveness as learning environments. It also demonstrated techniques for locating worthwhile data about such resource pools and helped identify areas where more information is needed.

In order to understand what resource pools are and how well they work, it is necessary to put them into context. Therefore, a brief description of the role of the resource pool in the FWL-EBCE model will precede the section on the methodology and data sources, the discussion of findings and the presentation of conclusions.*

THE ROLE OF THE RESOURCE POOL IN THE FWL-EBCE MODEL

The resource pool is comprised of Resource Persons (RPs), individuals who share their knowledge and expertise one-on-one and with small groups of students (from three to five or six), Resource Organizations (ROs), companies or agencies that make all or several of their departments available to students; and Community Resources (CRs), such as libraries, museums, and the Chamber of Commerce. ROs ordinarily offer group activities for students on an initial

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*If the reader would like more detailed information about the FWL-EBCE model, write: Experience-Based Career Education, Far West Laboratory for Educational Research and Development, 1855 Folsom Street, San Francisco, California 94103, or call (415) 565-3133.

level, and one-on-one contacts for students' subsequent experiences. RPs are developed at ROs for these later activities.

Activities with resources can be on three different levels. An Orientation (roughly one to nine hours) introduces students to the RP or RO, and provides them with general information about what the resource does, the purpose of the organization, how different departments function, and what they can do and learn there. In these initial experiences, students discuss their interests with the resource and how those interests might lead to project activities at the site. An orientation visit can also be solely for the purpose of acquiring some specific information and may not be intended to lead to further activity. Explorations (lasting approximately ten to 39 hours) enable students to obtain an overview of a subject, issue, or career. During explorations, they have limited opportunities to acquire hands-on experience -- to become actively involved in tasks at the resource site. Students who wish to acquire more in-depth knowledge about an area will instead (or after completing the Exploration) do an Investigation (forty hours or more). At this level, the student has greater opportunity for hands-on experiences and may even acquire some entry-level job skills.

In the Far West EBCE program, the organizing structure for student learning is the project. Projects are similar to independent studies. However, in addition to researching a subject, issue, or career through books and other written materials, the student must work with at least one resource for an extended period of time. A project requires that, for five credits in a subject (equivalent to .5 carnegie units), the student must complete an Exploration or Investigation with at least one RP or RO, do related reading and research, produce at least one tangible product (e.g., written report, film, piece of art, construction), and meet standards set for them in the related project planning package. There are five project planning packages: Commerce, Communications and Media, Life Science, Physical Science, and Social Science. The packages are sets of materials designed to help students plan and carry out projects that meet minimum standards for credit. The package goals provide guidelines for earning specific amounts and types of credit. In addition to goals, the packages also include suggestions for project topics, completed project plans that serve as prototypes for students and staff to follow, instructions for planning and completing a project, a listing of the subject areas in which credits may be earned, related careers to explore, and a list of the pertinent

RPs, ROs, and CRs with brief descriptions of what students can do and learn at their sites.

One of the first tasks each school undertook as part of its implementation was to develop an adequate resource pool. Resource pools should be well balanced, covering a broad range of career and subject areas, including careers that require different types and levels of education and training, and of about the same size as the planned student body.

After a resource is recruited, interviews are conducted to determine what students can do and learn at the site. The culmination of the interview (called a site analysis interview) is a Resource Guide, which provides the necessary information for arranging and preparing for visits as well as for planning projects. When the guide has been written, approved by the resource, and duplicated for student and staff use, the resource is considered fully developed. Students frequently recruit resources to meet their individual needs and interests. Student-recruited resources are legitimate members of the resource pool. They do, however, require follow-up by the staff to assure the program has been adequately explained and to obtain enough information to write a guide. Resources who have not participated in a site analysis interview often don't fully understand what students ought to be doing and learning with them.

Generally, resources begin by providing the students with an overview of their operation, later allowing them to become involved in a variety of tasks or jobs according to their interests and abilities. That may mean answering telephones, filing, responding to simple inquiries, reading files or reports, asking staff members what they do, accompanying staff on field work, assisting with patients (usually animals), attending staff meetings, setting up and operating equipment (ditto machines, typewriters, copy machines), learning how to use and care for tools (drafting equipment, microscopes), and learning the routines of the resource site. In some cases, students may do much of their project away from the site, using their resources as consultants or to obtain specific information. Most students, however, spend 30-50% of their time on a project at resource sites.

Students' experiences at resource sites -- what they do, see, learn and talk about, their encounters with their RPs and others -- are built upon and reinforced by their activities at the school. A student who is working on a project at a newspaper might spend the first week or so learning how a paper is put together from newsgathering to writing to layout, photos, advertising,

classifieds, and production. The student might spend the rest of the project in one particular area that he or she finds most interesting, such as the art department, sales, or sports department. The student will also spend considerable time in other out-of-school activities, e.g., doing research at the library, taking photographs, or conducting surveys. What the student does and is able to learn depends on his or her ability and motivation, the type of project being planned, and the constraints of the resource site. The students discuss their activities with the program staff and other students, sharing what they learn and problems they encounter. They are also asked to relate the specifics of their project to a broader subject area, such as communications and media.

Resources' perceptions of student learning are based on what they observe and what students and staff tell them. If they receive little feedback, their perspective will remain narrow since they see only one portion of the students' total learning program.

METHODOLOGY AND DATA SOURCES

The three programs whose resource pools are included in this study offer EBCE as a full-time alternative to classroom learning. This study considered the first year of operation for all three schools, the 1975-76 school year. The Carlile High School EBCE program,* located in a large metropolitan area, is open to 11th and 12th grade students enrolled in that high school. Thirty-seven students were enrolled in the fall semester and 53 were enrolled in the spring. The staff included a Program Director/Resource Analyst (develops and maintains resource pool), a basic Skills Specialist, and three Learning Coordinators (teachers). A pool of 66 RPs and ROs participated in the program.

Taylor High School, located in a city of about 100,000 people, is a small continuation school. It serves students in the 10th through 12th grades, drawing them from throughout the district. Enrollment for the year varied from 65 to 70 students. Taylor had been operating as an alternative school when its staff members learned about the FWL-EBCE model and, over the summer, decided to

*Fictitious names are being used for the three schools in this report.

modify their program with EBCE procedures and materials. Taylor already had a student body when its program was modified. During this first year, Taylor's students were there because they wanted to attend an alternative school rather than because of their interest in EBCE. The staff consisted of a Resource Analyst/Program Director, four Learning Coordinators, and a basic Skills Specialist. About 89 resources were program participants.

In Brown High School, the EBCE program is a department within the school. Student enrollment fluctuated from term to term (the school operates on what it calls a quinmester system -- four quarters from fall through spring and one quarter in the summer) with students entering and exiting at the beginning and end of each "quin." Enrollment was about 45 in the fall and up to 85 by the end of the spring quarter. Implementation began in the spring of 1975. The staff operated a pilot program over the summer. The staff consisted of a Resource Analyst and and two (fall term) or four (spring term) Learning Coordinators. One of the Learning Coordinators also serves as Program Director. The staff recruited about 108 resources for the program.

All of the programs were receiving technical assistance from the FWL-EBCE developers and in return were expected to provide evaluation information. The data were collected as part of an overall evaluation effort. Data sources for this study include the members of the three resource pools, the staff and students of the three programs, and the FWL staff who provided technical assistance and training.

Although the information available from any one source was limited, it was possible to combine data from several sources to obtain a multi-dimensional image of the three resource pools. The major sources of information were questionnaires completed by resources and students, the Student Activity Report (SAR), and descriptions of resource pool characteristics supplied by the schools.

The resource questionnaire was designed to address most of the questions of interest in this study and consisted primarily of rating scales. Near the end of the school year, the Resource Questionnaire was distributed by the school staff to all members of the resource pools. Questionnaires were returned by the respondents directly to Far West Laboratory. A follow-up mailing was done at Carlile High, contributing to the higher rate of return for that program.

The pertinent information desired from students was incorporated into a student questionnaire (the EBCE Perceptions Survey) completed by students at

the end of the school year. Although most questions were in the form of rating scales, some open-ended questions were included on the instrument. Some information related to perceptions of the resource experience was obtained from other instruments given to students and from school files.

An important and unique source of information was the Student Activity Report. The SAR was filled out weekly by each student and showed the hours spent in program activities including the time spent with each resource. A computer program was used to provide summary data on student time spent in various EBCE activities and on time spent by resources with students. Collection of the SAR had been an on-going effort through the school year. The analyses in this study are based on the SARs submitted by students at two programs during the spring semester or spring quarter.

Local program staff were asked to send lists of resource characteristics that were used for grouping information for the SAR analysis, and, as part of the year's data collection procedures, to compile lists of all resources who had been sent questionnaires. The school staffs had also been asked to complete each semester a summary of the resource pool membership.

A final source of information, used for validation purposes and to provide yet another perspective, was the reports written by the FWL technical assistance and training team. The members of this team travel to various EBCE programs to train staff and serve as EBCE consultants. Each trip is documented with a report stating what took place during the visit and the status of the program. Included in these reports are the assessments by both the FWL and the local staff of the program's problems and successes.

Data analysis consisted largely of the compilation of descriptive statistics such as frequences, percentages, and, where appropriate, measures of central tendency such as means and medians. Correlations were used to further describe relationships among certain variables. In some cases, where data were presented from only two groups, t-tests were used.

NATURE OF THE RESOURCE POOLS

What Was the Relative Degree of Development of the Resource Pools at Carlile, Taylor, and Brown High Schools?

An important variable throughout this study was the degree of development of each resource pool. Although data were not complete for all three programs, they do show that Carlile High School developed nearly twice as many ROs as RPs (43 to 23), that Taylor developed 89 resources but did not identify whether they were RPs or ROs, and that Brown developed only three ROs and multiple RPs at ten other organizations. Table 1 summarizes the available data on the size of the three resource pools.

TABLE 1

SIZE OF DEVELOPED RESOURCE POOLS

CATEGORY	Frequencies		
	Carlile	Taylor	Brown
Resource Persons	23	--	91
Resource Organizations	43	--	3
Not specified as RPs or ROs	--	89	--
Number of different organizations in the resource pool	66	--	84
Number of people in the resource pool	76	89	108

Tables 2 and 3 show the judgments of the Brown and Carlile staffs about the career family and project planning package areas represented by their resource pools. Clearly, both resource pools reflect a broad array of subject and career areas. However, there are a few career families and package areas where it appears to be more difficult to obtain resources than others. These

TABLE 2

DISTRIBUTION OF RESOURCES BY CAREER FAMILY

CAREER FAMILY*	Frequencies	
	Carlile	Brown
I. Engineering, physical science, mathematics, architecture	13	5
II. Medical and biological sciences	16	13
III. Business administration	13	7
IV. General teaching and social service	9	10
V. Humanities, law, social and behavior sciences	21	21
VI. Fine arts, performing arts	11	7
VII. Technical	20	5
VIII. Business, sales	15	15
IX. Mechanics, industrial trades	2	4
X. Construction trades	6	4
XI. Business, secretarial-clerical	3	4
XII. General community service, public service	39	10
XIII. Other		3

*Based on the career classification system developed by the American Institutes for Research. The AIR Career Guidance Program, Palo Alto, California, 1973.

include the trade, both industrial and construction, and the secretarial/clerical business families (AIR families IX, X, and XI), and the physical sciences. Since Carlile entered most resources in more than one AIR career family (the mean was 2.5 entries per resource), their total number of entries far exceeds the size of their resource pool (168 entries compared to 66 resources). Brown

entered each resource in only one career family, resulting in a pool that appears to be less well-balanced than Carlile's.

TABLE 3

DISTRIBUTION OF RESOURCES IN PROJECT PLANNING PACKAGES

PACKAGE	Frequencies	
	Carlile	Brown
Commerce	15	35
Communications and media	10	28
Life Science	14	10
Physical Science	9	9
Social Science	26	30
Other	-	1

The data show that the Carlile and Brown resource pools were adequate for operating an EBCE program. They each had a number of resources at least equal to the number of students enrolled, and the resources represented a broad array of career and subject areas. Each resource pool contained a male/female ratio of about 3:1 (Carlile developed 23 females to 71 males, Brown developed 28 females to 79 males). While an equal proportion has not been achieved, these figures probably reflect the male/female balance in the represented career areas of the three communities. While Taylor's resource pool was large enough for the number of students enrolled, not enough was known about its other characteristics to judge how closely it matched the recommendations.

Taylor, in fact, seemed to have had difficulty developing and maintaining its pool of resources. Far West Laboratory Technical Assistance and Training

(TAT) staff reported that resource guides were too few or incomplete, maintenance contacts were insufficient, and resource records were inadequate.

The reports for Brown High School noted that although the program had a sufficient number of resources, nearly all of whom had guides, staff had not yet shifted efforts from resource development to resource maintenance. This means that resources who had been interviewed some months before had not had any staff contacts since.

In contrast, Carlile High School TAT reports note the high quality of the resource guides reviewed, the completeness of resource pool records, and the balance of resources across career and subject areas. It had the most developed resource pool of the three programs, and, in fact, represented the highest fidelity implementation of the FWL-EBCE model. The degree of development of the resource pool affects the quality or extent of learning at the site. In order to demonstrate this, the next two sections of the study will contrast students' learning experiences at the well-developed Carlile resource pool with the combined experiences of students at the less well-developed resource pools of Taylor and Brown.

A further rationale for combining Taylor and Brown when considering site learning activities is found in the mean item responses on the Resource Questionnaire. Responses of the Taylor and Brown groups tend to be very similar and means are lower than those for the Carlile group. Out of 46 items, t-tests found significant differences between Taylor and Brown on only one item. In contrast, when data from these two programs were combined and compared with that from Carlile, significant differences were found on 26 items, with the Carlile resources expressing more favorable impressions of the program. In other words, Taylor and Brown resources share some common perceptions of the EBCE program.

What Activities Took Place at Resource Sites?

One set of items on the Resource Questionnaire asked for ratings of the frequency of occurrence of seven activities at the sites. This list of possible activities covered the broad range of learning experiences that were considered part of the resource role in the FWL-EBCE model. Results for Carlile and for the combined Taylor-Brown group are shown in Table 4. The two activities that

TABLE 4

RESOURCE REPORT ON FREQUENCY OF STUDENT ACTIVITIES AT SITES

SITE ACTIVITY Four-point scale: 1=never to 4=always	Carlile N=69		Taylor-Brown N=60		t Value
	Mean	S.D.	Mean	S.D.	
Talk about jobs and careers	2.74	.83	3.02	.93	-1.79
Observe work activities	2.70	.94	2.76	1.11	- .31
Plan or work on project	2.64	.91	2.19	1.06	2.54*
Learn job or career skills	2.52	.99	2.11	1.10	2.11*
Participate in work activities	2.49	1.06	1.97	1.08	2.73**
Talk about personal interests or issues	2.40	.81	2.45	.88	- .35
Learn academic skills	2.23	.90	1.70	.85	3.23**

*Significant at 5% level
**Significant at 1% level

occurred most frequently were "talking about jobs and careers" and "observing work activities." Differences between the Carlile and Taylor-Brown groups on these two items were not significant. A less frequently occurring activity for both groups was "talking about interests and issues." Means for the remaining four activities were significantly higher for the Carlile group: planning or working on a project, participating in work activities, learning career skills, and learning academic skills. It appears that both resource groups provided students with an opportunity to talk about and observe career and work activities while the Carlile group provided more opportunity for students to be involved in planning, working, learning, and participating.

The same set of items was presented to students. They were asked to rate the frequency of their activities at the resource where they had spent the most time. The data are not directly comparable with that from resources because

the rating of a student's longest experience should show a higher level of involvement than ratings of all student experiences with resources. The results in Table 5 show that for students at all three programs, talking (whether about jobs or interests) was relatively less frequent while observing was the most frequent activity listed. (Observing was the only item with a mean over 3.0 for all sites and the only item over 3.0 for two sites.) Learning job and career skills and planning and working on the project were frequently occurring activities for all student groups while participating in work activities was more common in the Carlile program. The relatively high rating for "learning job and career skills" probably reflects the fact that students are reporting on a long experience -- one purpose of such experiences in EBCE is to provide an opportunity to explore a career in depth.

TABLE 5

STUDENT REPORT ON FREQUENCY OF ACTIVITIES
DURING LONGEST RP EXPERIENCE

SITE ACTIVITY	Carlile		Taylor		Brown	
Four-point scale: 1=never to 4=always	Mean	Rank	Mean	Rank	Mean	Rank
Talk about jobs and careers	2.44	6	2.55	5	2.68	5
Observe work activities	3.27	1	3.00	1	3.28	1
Plan or work on project	2.90	5	2.84	3	3.09	2
Learn job or career skills	3.08	2	2.91	2	2.91	3
Participate in work activities	3.04	3	2.45	6.5	2.71	4
Talk about interests, issues	2.94	4	2.67	4	2.65	6
Learn academic skills	2.29	7	2.38	7	2.48	7

Although learning academic skills was not rated as a frequently occuring event at sites by either students or resources, it did take place. The Carlile

program appears to have been able to offer more opportunities for learning academic skills than the other two programs. Sixty percent of the Carlile resources report spending some time with students on academic skills. Because this group had been more fully developed and had more frequent contact with the school staff, they were more aware of the role of academics in their site activities and may also have been more conscious of the presence of opportunities for such learning.

What Were Students Able to Learn at Resource Sites?

Resources were asked to rate whether students could acquire knowledge or skills in twelve different areas at their site. The results, shown in Table 6, demonstrate the differences in availability of learning opportunities as perceived by the two groups. Means for all items are higher for the Carlile group and significantly so on eight out of the twelve items. Six items have means above 3.0 at Carlile, while only one item, "learning about careers and jobs," was rated above 3.0 by the Taylor-Brown group. It appears that both groups see "learning about careers and jobs" as the primary knowledge that can be acquired at the sites, while Carlile resources were more likely to feel that a broad range of learning was possible.

The six items rated above 3.0 by Carlile resources were also the same six items rated highest by the Taylor-Brown groups (although not in the same order and with lower means). It appears, therefore, that both groups agree on the relative availability of the following skills and knowledge at their sites: learning about careers and jobs; accepting many different ideas and backgrounds of people; improving skills in working with adults; thinking through and solving problems; planning for a career or careers; and learning how to do a particular job. This encompasses all the career-related items with the exception of "learning job-seeking skills."

Although the two groups came up with similar rankings, there were still wide differences in means, as shown in Table 6. For six items, the means for the Carlile group were significantly higher at the 1% level. The greatest difference (t-value of 5.17) was in the opportunity to think through and solve problems. Other areas of noticeable difference were those involved with people-- improving listening and speaking skills and improving skills in getting

along with students, adults, and those with different backgrounds. The Carlile group of resources also felt students had more chance to learn job skills.

TABLE 6

RESOURCE RATINGS OF AMOUNT OF OPPORTUNITY TO LEARN AT RESOURCE SITES

LEARNING AREA Four-point scale: 1=none to 4=a lot	Carlile N=72			Taylor-Brown N=59			t value
	Mean	S.D.		Mean	S.D.	Rank	
Learning about careers and jobs	3.56	.58	1	3.29	.67	1	2.45*
Accepting many different ideas and backgrounds of people	3.32	.89	2	2.83	1.00	3	2.97**
Improving skills in working with adults	3.28	.81	3	2.76	1.10	4	3.01**
Thinking through and solving problems	3.24	.80	4	2.38	1.04	6	5.17**
Planning for a career or careers	3.14	.78	5	2.92	.78	2	1.65
Learning how to do a particular job	3.04	.91	6	2.58	1.10	5	2.65**
Improving listening and speaking skills	2.79	.88	7	2.27	1.06	8	3.04**
Improving job-seeking skills	2.52	.81	8	2.34	.99	7	1.15
Improving skills in working with other students	2.33	1.08	9	1.72	1.01	11	3.27**
Improving writing skills	2.16	.96	10	1.80	.98	9.5	2.11*
Improving reading skills	2.07	.93	11	1.80	1.00	9.5	1.62
Improving math skills	1.72	.90	12	1.49	.86	12	1.46

*Significant at 5% level
**Significant at 1% level

What Was the Relationship Between What Students Did and What They Could Learn at the Resource Sites?

The question of what students did and learned at resource sites was further explored by examining the correlations between resources' ratings of how often activities occurred and the learning opportunities presented at the sites.* Separate correlation matrices were prepared for each of the Carlile and Taylor-Brown groups. Agreement between both groups about the relationship between knowledge or skills and an activity reinforces the likelihood that such a relationship actually exists. Table 7 shows all the points in the matrix where there was a significant correlation for both groups. It demonstrates that there was substantial agreement between the two groups on the relationship between the available activities and their potential for learning. There were two student activities that showed significant correlation with five different learning areas: learn job and career skills, and planning or working on a project. It would appear that resources showing high frequency levels for these two learning activities will also demonstrate the presence of a variety of learning opportunities.

Analysis of this matrix reinforces the impression given by other information, namely, that major learning opportunities become available when students get beyond the talking and observing stage. Where students are participating and learning career skills, they are also likely to gain experience in problem-solving and in working with adults. When students are engaged in planning or working on a project, they also gain in basic skills and in problem-solving. The matrix as a whole provides a picture of the FWL-EBCE resource model as perceived by the participating resources. It is evident that these two groups of resources, in spite of differences in degree of site development, do see their sites as providing a wide range of learning opportunities for students.

*A standard Pearson r correlation matrix was used.

TABLE 7

CORRELATIONS BETWEEN RESOURCE RATINGS OF LEARNING OPPORTUNITIES AND RESOURCE RATINGS OF FREQUENCY OF STUDENT ACTIVITIES AT CARLILE AND AT TAYLOR-BROWN

LEARNING OPPORTUNITY	Activity						
	talk about jobs, careers	observe work act.	partic. work acti.	learn job, career skill	learn acad.	plan, work proj.	talk inter-ests
Learning about careers and jobs		X					
Accepting many different ideas and backgrounds of people		X		X	X		
Improving skills in working with adults			X				
Thinking through and solving problems			X	X	X	X	
Planning for a career or careers				X			X
Learning how to do a particular job	-X	X	X	X		X	
Improving listening and speaking skills							
Learning job-seeking skills		X		X			
Improving skills in working with other students							
Improving writing skills					X	X	
Improving reading skills					X	X	
Improving math skills						X	

An X indicates that a positive correlation significant at the 5% level was present for each group. A negative X indicates the correlation was negative for both groups.

How Much Time Was Spent in Resource Activities by Students and by Resources?

The basic mechanism for reporting student time with resources was the Student Activity Report (SAR) described previously in the methodology section. Two sites (Carlile and Brown) sent in the necessary resource demography to be used in processing resource hours; this analysis will be based on the student-resource hours reported for those sites during the spring semester or quarters. A summary of the data is presented in Table 8. The number of students includes those enrolled for any portion of the spring semester. Because of the high turnover at Brown, the total of 102 students listed is considerably more than the number of students enrolled at any one time; also, the number of missing SARs at Brown is higher, partly because many students were not enrolled for the entire semester. In contrast, the data received from Carlile represent almost complete coverage of the group of 56 students. However, the number of SARs received from the two sites is about the same and the basic analysis involves a comparison of the two sets of SARs received.

Each SAR is a collection of entries of time spent for one week in various EBCE activities. One portion of the SAR asks the student to list each resource visited that week. Such an entry consists of the student's number, the resource number, and the length of the visit in hours. Every developed resource was assigned a unique number while all undeveloped resources share the same number. Another number was assigned to all other community resources.

The total resource entries on the SARs is shown in Table 8. Although the number of SARs is about the same, the Carlile resource group has about twice as many entries (2066 compared to 1010), more one-to-one contacts reported (1047 compared to 713), and a much greater percentage of such contacts with developed resources (929 compared with 340).

A "pairing" consists of the combination of a student and a resource, regardless of the amount of time or number of visits involved. Many pairings represent only one entry on a single SAR while others encompass multiple hours reported over several weeks. It can be seen that the total number of pairings was about the same for both sites (434 for Carlile, 392 for Brown). However, the heart of the community program is the students' use of developed resources. Students in the Carlile program reported more than twice as many pairings with developed resources; this was in spite of the fact that the larger number of students in the Brown group should have increased the probabilities of different student-resource pairings.

TABLE 8

SUMMARY OF STUDENT ACTIVITY AT RESOURCE SITES DURING THE SPRING SEMESTER
COMPILED FROM STUDENT ACTIVITY REPORTS (SAR)

CATEGORY	Carlile	Brown
Number of different students	56	102
Number of SARs received	911	849
Number of SARs not received	41	885
Total number of developed RP/RO entries	929	340
Total number of entries for undeveloped RPs/ROs	118	393
TOTAL ONE-TO-ONE CONTACTS	1047	733
Total community resource entries	1049	307
Total resource entries	2096	1040
Number of pairings with developed RPs/ROs	292	137
Number of pairings with undeveloped RPs/ROs	37	149
Number of pairings with community resources	105	106
Total pairings	434	392
Total hours with developed RPs/ROs	4373	1629
Total hours with undeveloped RPs/ROs	595	1624
TOTAL ONE-TO-ONE HOURS	4968	3253
Total hours with community resources	3787	1663
Total hours	8755	4916
Mean hours per pairing: RP/RO	15	12
Undeveloped RPs/ROs	16	11
Community resources	30	16
Mean hours per SAR	9.6	5.7
Number of developed RPs/ROs for whom hours are reported	55	43
Mean hours per developed RP/RO (based on sum of all student hours per site)	80	38

The pattern shown for the number of SAR entries and the number of pairings continues when the number of hours reported is considered. Although there were close to the same number of SARs received from each site and a proportionate number of pairings, the total hours reported in resource activities was 8755 for Carlile and much less, 4915 hours, for Brown.

Carlile students spent about half of their time with developed resources; Brown students spent less than a third, but reported more hours with undeveloped resources. Overall, more than half of the resource hours at Carlile and two thirds of the hours at Brown were spent in one-to-one resource relationships. Further, it appears that once a relationship is started with an RP or RO, it will tend to be only slightly longer at the Carlile program (about 15 or 16 hours compared with 11 or 12 for the Brown program); this is given in Table 8 as the mean hours per pairing. Even though Carlile students used the program's developed resources more, the time spent with each resource was not much more than that spent by Brown students with their developed resources.

Table 8 also shows the mean hours reported per SAR. Since each SAR represents one student's reported activity for one week, the mean hours reported per SAR are a measure of the amount of student activity in the field. Carlile students reported a mean of 9.6 hours per SAR, while Brown students reported a mean of 5.7. (Taylor students, not included in Table 8, spent an average of 4.3 hours per week in the community).*

A total of 55 developed resources at Carlile and 43 developed resources at Brown were used at least once by students during the spring semester. The mean student hours at a resource can be determined by dividing the total hours at developed resources by the number of resources used. Some resources saw a number of students, but, often, especially during the longer contacts, only one student was seen at a time. The mean student hours, therefore, can give a rough, though inflated, estimate of the resource contribution in hours. As shown in Table 8, the mean student hours at a Carlile-developed resource site was 80, while at Brown the mean student hours per resource was 38.

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*The SAR covers the student's total school activities. Only the portion related to resource activities is discussed in this study. Generally, programs and students reporting lower resource use will report higher hours in school-based activities. The recommended percentage of time for student activity in the field is 30%.

A second estimate of resource time is available from the Resource Questionnaire. Resources were asked, "During the past school year, approximately how many hours have you and your staff spent in EBCE-related activities?" Responses are shown in Table 9. The figures in this case include those reporting no hours. Median hours reported are close to 25 for both Carlile and Brown. Resources in the Taylor program had a median participation level of only 10.3 hours. It appears that the resources' own estimate of time spent is relatively low in terms of their contribution to students as indicated by the student-reported hours. Well-developed resources, therefore, seem able to provide students with worthwhile learning activities that occupy much more time than just that spent by the resource person in direct contact with the student.

TABLE 9

RESOURCES' ESTIMATE OF AMOUNT OF TIME SPENT IN EBCE-RELATED ACTIVITIES

HOURS	Carlile N=62		Taylor N=32		Brown N=23	
	Frequency	Cum. Percent	Frequency	Cum. Percent	Frequency	Cum. Percent
0-9	16	26	12	38	8	35
10-19	12	45	7	59	2	43
20-29	6	55	5	75	3	57
30-39	3	60	0	75	2	65
40-49	6	69	3	84	0	65
50-59	3	74	0	84	1	70
60-69	4	81	3	94	1	74
70-79	3	85	0	94	1	78
80-89	1	87	1	97	0	78
90-99	0	87	0	97	1	83
100-199	5	95	0	97	2	91
200-600	3	100	1	100	2	100
Median	24.8		10.3		25.0	

In summary, this section has presented evidence to show that resources do spend significant amounts of time with students (on the average, 12-15 hours per student). At Carlile and Brown, students devoted a considerable number of hours in one-to-one contacts with resources, supplementing this with other types of community activities. Students at Carlile, the program with the better developed resource pool, spent more time in the field and made greater use of the developed resources. The degree of development of the pool is an important factor in its use by students.

PARTICIPANTS PERCEPTIONS OF PROGRAM SUCCESS

How Well Did the Program Work From the Resource Perspective?

At the end of the school year, resources were asked to compare their original understanding of EBCE and their role in it, to their actual experience. Table 10 summarizes their response. Although there was by no means a perfect fit, most resources (94 out of 126 respondents) answered positively; only seven felt strongly that activities had not been as expected. It appears that, from the point of view of the resources, the EBCE program did what it planned to do.

The question of whether volunteer resources are able to contribute sufficient time to the program has concerned educators considering the implementation of a community-based program. Previous sections have presented information on the amount of time resources had spent in EBCE activities over several months. Table 10 shows that when resources were asked to rate actual time spent in comparison to the anticipated amount, only seven resources reported the program took "definitely more" time than they had expected. On the other hand, more than half the respondents at Carlile, and two thirds of those at the other programs, reported spending <u>less</u> time than they expected.

Apparently, a sizable proportion of those returning the questionnaire were under-utilized according to their own expectations. Some resources, not represented in the sample, did not complete the qeustionnaire, but returned it with a comment to the effect that they did not feel qualified to respond because of insufficient contact with students. These responses offer additional evidence that there were a number of developed resources who were not used at all during

TABLE 10

RESOURCES' PERCEPTIONS OF ACTIVITIES AND TIME

ITEM Four-point scale 1 = definitely no 4 = definitely yes	Program	N	Frequencies					Mean	S.D.
			1	2	3	4	Omit		
1. Did the student activities that took place at your site fit the original understanding that you had of EBCE activities?	Carlile	72	4	8	25	32	3	3.23	.88
	Taylor	34	2	3	12	12	5	3.17	.89
	Brown	26	1	8	10	7	0	2.89	86
2. Has participation in EBCE activities taken more or less time than you originally expected?	Carlile	72	12	27	26	4	3	2.32	83
	Taylor	34	14	8	5	1	6	1.75	.89
	Brown	26	9	8	5	2	2	2.00	.98

the period under study. It is not known how long infrequently used resources will remain associated with the program.

How did the resources feel about the students with whom they worked? They were asked to rate students on a satisfactory/non-satisfactory scale on three dimensions: reliability in keeping commitments; behavior at the site; and interest in site activities. Results are presented in Table 11. These ratings are quite high. It is particularly interesting that means for the highest-rated item, behavior at the site, were very close for the three schools whose program characteristics and student bodies differed. It appears that resources have few complaints about student behavior.

TABLE 11

RESOURCE RATINGS OF STUDENT BEHAVIOR

DIMENSION Four-point scale 1 = never satisfactory 4 = always satisfactory	Carlile		Taylor		Brown	
	Mean	S.D.	Mean	S.D.	Mean	S.D.
Behavior at the site	3.78	.45	3.79	.42	3.76	.44
Interest in site activities	3.65	.59	3.42	.71	3.35	.70
Reliability in keeping commitments	3.49	.56	3.30	.77	2.94	.83

When resources were asked to rate the frequency of seven types of staff contact at their sites, more Carlile resources reported staff contacts than those at Taylor or Brown. Table 12 presents a portion of the data in condensed format. Originally there were seven items in this set of scales. One item, number of contacts with other staff members, showed a relatively low frequency at all programs. The wording of the other two items was changed by the Carlile program so that the three programs cannot be directly compared. All but two of the Carlile resources reported that they had had contact in the form of "letter, card, luncheon invitation or other personal communication from staff" and over 75% had received a "resource guide, guide booklet or other printed

material." While close to half of the respondents at the other two sites reported that they had not had contact in the form of "letter or other personal communication from staff" or a "printed newsletter or other information material." Although the item wording is different, it is evident that there was less communication with Taylor and Brown. These data testify to the effort the Carlile staff expended on maintaining their resource pool.

TABLE 12

FREQUENCY OF STAFF CONTACTS WITH SITES
AS REPORTED BY RESOURCES

Type of Contact	Program	Frequency	
		None	Some
Telephone call from LC	Carlile	12	54
	Taylor	16	15
	Brown	6	15
Telephone call from RA	Carlile	18	46
	Taylor	18	16
	Brown	10	13
Visit by CL	Carlile	23	42
	Taylor	18	15
	Brown	11	14
Visit by RA	Carlile	28	39
	Taylor	12	21
	Brown	8	15

The resources were also asked to rate the success of staff-resource relationships. (See Table 13.) There are noticeable differences in responses to this question based on the program with which the respondent is identified. The Carlile resources perceive their relationship with the staff as quite successful, but both the Taylor and the Brown resources were particularly conscious of not having received enough program feedback. Brown did not consider

any portion of the staff contact as particularly satisfactory (the means for all three items were on the negative end of the scale).

TABLE 13

RESOURCE RATINGS OF STAFF ASSISTANCE

AREA OF ASSISTANCE Four-point scale 1 = never satisfactory 4 = always satisfactory	Carlile		Taylor		Brown	
	Mean	S.D.	Mean	S.D.	Mean	S.D.
Assistance with student problems	3.47	.79	3.13	.99	2.69	1.03
Assistance in planning meaningful student activities	3.36	.82	3.25	.91	2.60	.91
Feedback on student progress	3.12	.95	2.31	1.20	2.00	.82

How Do Resources Feel About the Value of Participation in the EBCE Program?

An important factor to consider in analyzing the utility of community-based learning resources is a consideration of the payoff to those in the community who donate their time and effort. Unless the members of a resource pool see the experience as rewarding, and will remain in the pool for an extended period, an EBCE program will not be able to function effectively. Resources were asked specifically about payoffs with the following question: "In terms of your own experiences -- weighing costs, benefits, and other contributing factors, -- how do you feel about participation in the EBCE program by you; by your organization; by students in your community?" Results are shown in Table 14. Participation by self and students is seen as clearly desirable by everyone: means ranged from 3.2 to 3.6 on a four-point scale. Value to the organization is less important for those programs where there was less emphasis on developing organizations as resources.

TABLE 14

RESOURCE RATINGS ON VALUE OF PARTICIPATION IN EBCE PROGRAM

VALUE OF PARTICIPATION Four-point scale 1 = Undesirable 4 = Very desirable	Carlile N=68		Taylor N=34		Brown N=24		Total N=126	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
To Students	3.58	.66	3.28	.89	3.35	.71	3.45	.74
To Self	3.49	.66	3.15	.78	3.17	.56	3.33	.69
To Organization	3.50	.64	3.03	.94	2.95	.79	3.27	.79

When asked if they planned to continue to participate in the EBCE program, and if they would recommend the program to others, resources responded very positively as Table 15 shows. Out of a total of 131 responses, only nine would not recommend the program to others. Only two out of a total of 125 respondents will not continue, 12 are apparently likely to drop from the program, and most of the remaining 111 definitely plan to continue their participation in EBCE. While it should be noted, once again, that the resources at Carlile are more positive about the program than those from the other two locations, the great majority of the members of all three resource pools saw a positive value in their participation in EBCE, and almost all planned to continue in the program.

The Resource Questionnaire included an item which asked the respondents to rate the importance to themselves of each of several reasons for participation in the EBCE program. The data are presented in Table 16. There was strong agreement among resources that the three most important reasons were: giving students new learning experiences; helping students to grow and mature; and giving students career information. It is clear that in spite of differences in student characteristics, resource development, support of resource activities by the programs and student participation levels, resource

TABLE 15

RESOURCES' PERCEPTIONS OF THE EBCE PROGRAM

ITEM Four-point scale 1 = definitely no 4 = definitely yes	Resources at Site	N	Frequencies 1	2	3	4	Omit	Mean	S.D.
1. Do you plan to continue to participate in the EBCE program?	Carlile	72	0	4	14	52	2	3.69	.58
	Taylor	34	1	5	13	11	4	3.13	.82
	Brown	26	1	3	14	7	1	3.08	.76
2. Would you recommend to others that they become involved in the EBCE program	Carlile	72	1	1	13	56	1	3.75	.55
	Taylor	34	1	4	11	18	0	3.35	.81
	Brown	26	0	2	8	15	0	3.52	.65

TABLE 16

RESOURCE RATINGS OF REASONS FOR PARTICIPATION
IN THE EBCE PROGRAM

REASON Four-point scale 1 = not important 4 = very important	Carlile N=67		Taylor N=35		Brown N=24		Total N=126	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
Giving students new learning experiences	3.67	.53	3.17	.92	3.48	.73	3.50	.73
Helping students grow and mature	3.58	.58	3.14	.94	3.39	.66	3.42	.73
Giving students career information	3.49	.61	3.31	.68	3.25	.85	3.40	.68
Increasing my understanding of youth	2.84	.90	2.65	.98	2.78	.90	2.77	.92
Participating in a new community program	2.85	.87	2.65	1.18	2.61	.78	2.75	.95
Increasing community awareness of organization	2.82	1.03	2.53	1.08	2.52	.90	2.69	1.02
Working with professional school staff	2.30	.94	2.09	1.04	1.67	.73	2.13	.96

participants at all three sites saw the primary reasons for participation as those involving what they can offer students; secondary were those items that indicate benefits that they (and their organizations) can receive from participation. Once again, the responses from Carlile were more positive for each item than those from the other programs. However, these three groups show an impressive degree of unanimity about the importance of being able to contribute to the growth and learning of high school students. This appears to be a major source of their expressed satisfaction with the EBCE program.

In summary, resources from all three programs liked the program, intended to continue participating in it, would recommend it to others, and gained their greatest satisfaction from the value they placed on being able to help students learn.

How Did Students Feel About the Resource Portion of the EBCE Program?

In the EBCE program, since experiences with resources in the community form an integral part of students' learning, the value they place on those experiences tend to be tied closely to their perceptions of the program as a whole. It is not the purpose of this paper to present extensive information on students' perceptions of the total EBCE program.* However, where student perceptions provide insight into the effectiveness of the resource pools, their reactions are presented in some detail.

Some indication of student opinions is presented in Table 17. In general, students judged the EBCE program highly favorably, although a small group at Taylor EBCE had some negative impressions. Even with this negative subgroup at Taylor, the concept of learning tied to experiences at resource sites is well supported (means ranged from 4.1 to 4.7 on a five-point scale).

Student perceptions of resources is shown in Table 18. Means are positive for the three items, although students at Carlile reported more opportunity to "do things rather than just watch or listen," supporting data presented previously. All student gave very high ratings (means of approximately 4.5 on a five-point scale) to the interest in the program demonstrated by resources.

Students were given an opportunity to express their opinions of the EBCE program on two open-ended questions -- one asking for general comments on the program while the other requested reasons for students' responses to the scale question, "If you had it to do over again, do you think that you would participate in the EBCE program?" The students' write-in comments were examined for references to the resource portion of the program.

The students at Carlile were overwhelmingly positive about their EBCE program. Only three students were undecided (rated a three) about repeating their experiences in EBCE. Only two comments were made that directly reflected students' perceptions of the resource pool. One said that the program "needs more skilled trade resources" and another said "almost all the RPs said they wished they had (EBCE) when they were in school." Other comments by the Carlile students, that are indirect expressions of the nature and usefulness of

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*For further information, see products of the Far West Laboratory Experience-Based Career Education Program: Final Evaluation Report FY74, Final Evaluation Report FY75, and Final Evaluation Report FY76.

TABLE 17

ATTITUDES OF STUDENTS TOWARD THEIR EBCE PROGRAMS

ITEM Five-point scale 1 = definitely no, or very little 5 = definitely yes, or very much	Program	Frequency						Mean	S.D.
		1	2	3	4	5	Omit		
1. If you had it to do over again, would you participate in the EBCE program?	Carlile	0	0	4	3	45	0	4.79	.57
	Taylor	1	6	8	17	40	1	4.24	1.04
	Brown	1	0	4	5	20	2	4.43	.97
2. How do you like the way of learning (relating study to experiences at resource sites) that is used in the EBCE program?	Carlile	0	0	1	14	36	1	4.69	.51
	Taylor	1	6	11	22	33	0	4.10	1.03
	Brown	0	1	2	8	21	0	4.53	.76
3. In comparison with you past experiences, how motivated to learn were you in the EBCE program?	Carlile	0	1	4	19	26	2	4.40	.73
	Taylor	5	3	9	20	36	0	4.08	1.19
	Brown	1	1	6	6	18	0	4.22	1.07

TABLE 18

STUDENT RATINGS OF RESOURCES

ITEM Five-point scale: 1=definitely no 5=definitely yes	Carlile N=49		Taylor N=71		Brown N=32	
	Mean	S.D.	Mean	S.D.	Mean	S.D.
1. Have the persons at the resource sites you've visited been interested in the EBCE program?	4.49	.68	4.55	.77	4.47	.80
2. At resource sites, did you get to actually do things rather than just watch or listen?	4.25	.97	3.72	1.32	3.91	1.40
3. Was there enough choice in deciding what to do at resource sites?	4.14	.76	3.63	1.20	4.31	.82

the resource pool, have to do with what they were able to do and learn through the program. The two most frequent comments had to do with students' ability to pursue their own educational interests and the opportunity to acquire the knowledge and skills necessary for career decision-making. For example, students said such things as, "I could learn a lot of things I was interested in"; "It especially helps those people who are undecided about their future plans," "It makes a person want to excel in the basics, reading and writing," etc. Apparently the resource pool at Carlile was more than adequate to meet the needs and interests of the students.

At Brown, while the great majority expressed positive feelings about the program, a few students (3) felt that if they had it to do over again, they would not participate in EBCE. However, the comments made by these students related to factors other than the resource pool. The greatest number of positive comments students made were related to the programs' structure (working with resources in the community, individualized projects, responsibility for your own actions, and freedom to pursue your own interests), and the opportunities for career development. Some examples of students' comments include:

"I can investigate the field I want to become a professional in before I go to college. . .", "It teaches you a lot of responsibility," and "It's because I like to go to a resource person and ask questions about their job." There were no comments from students that indicated an inability of the resource pool to meet their needs and interests. In fact, they repeatedly expressed their satisfaction with the program's ability to provide them with learning experiences that interested them.

In contrast to the programs at Carlile and Brown, although a majority of the Taylor students felt that they would repeat their EBCE experiences, they had many more negative comments to make about the resource pool. Most of these comments had to do with the staff's stipulation that the only way students could earn credits was through projects. Many felt that the program should offer optional means of earning credits. Some of the comments seem to indicate, however, that it was not just the method of earning credits that was causing the problem, but that the resource pool was not adequate to meet their needs and interests. Negative comments included: "Sometimes you have to go to a resource person you aren't even interested in just to get the credits," "more resource persons and sites," and "There are some things you can't learn by a Resource Person."

Taylor's students had many positive things to say about the program, too. These comments focused on the opportunities to learn job and career skills, work with people out in the community, and acquire career decision-making skills. Some examples of positive comments included: "You learn on your own and share it with others . . . and I like working with Resource People," "I feel that it was helpful to me in finding out more about careers and how many alternatives I have," and "I feel that I got to learn more by going out into the community and working with different Resource Persons."

Across all three programs, students expressed their belief in the usefulness of the resource pool in providing them with interesting and worthwhile learning opportunities. What they say they learned and did at resource sites is highly compatible with the programs' goals and coincides with resources' perceptions of student activities and learning.

CONCLUSIONS

The feasibility of the FWL-EBCE approach is supported by the data presented. The study has presented one model for the use of community-based learning resources, and has shown how it functions in three school programs. Conclusions as to its utility can be drawn in several areas:

- Adequacy of the resource pools. The three programs were able to develop and maintain resource pools of an adequate size to meet students' needs in a variety of career fields and academic disciplines.

- Scope of student experiences. The actual activities that took place matched resource expectations. The practicality of offering a variety of activities and learning opportunities at sites was supported by student and resource reports. Using community resources to blend career education with life and basic skills is a goal of the Far West model; support for this position was shown by resource understanding of the variety of activities at their sites that could result in worthwhile learning outcomes for students.

- Amount of student use (based on two programs). Students spent a substantial portion of their weekly program in the community (5.7 and 9.6 hours per week). More than half of their reported time in the community was spent in one-to-one contacts with resources.

- Amount of resource time. The model appears to be practical in terms of the amount of time required from resources. They reported spending less time in the program than they had expected. The mean time spent in a student-resource relationship ranged from 11 to 16 hours.

- Positive resource impressions. Resources showed a high degree of accord in stating that helping students was the major reason for participating in the program. They were well satisfied with student behavior at their sites, and planned to remain a part of the program.

- Positive student impressions. Students' perceptions of the success of the resource-related portion of the program were very favorable. Most students would participate again and valued using the community for experience-based learning.

A comparison of the more fully implemented Carlile program with the other two programs demonstrated that there is a relationship between the degree of development and maintenance of a resource pool and the extent of the activities that took place. Several differences were noted that support this conclusion:

- Amount and quality of staff contact. More Carlile resources reported direct contacts with program staff. Carlile resources felt more positive about the quality of the assistance that they had received.

- Amount of student time. Carlile students spent almost twice as much time in the field. They saw more than twice as many resources. They spent close to three times as many hours with developed resources.

- Student learning at the site. The Carlile group of resources provided more opportunity for students to take part in a variety of site activities such as participating in work activities and acquiring academic skills. These resources saw significantly more opportunity for on-site learning in eight out of twelve learning areas, including problem-solving and skills in working with others.

Some recommendations to others considering using the community as a learning resource can be drawn from this study. First, under-utilization of resources seems to be an outcome of inadequate resource pool development and maintenance. Second, someone implementing such a program must remember that without adequate preparation by the staff, resources will have difficulties providing students with extensive learning experiences in a broad range of areas. Nor will students use resources as frequently as they would if properly developed. Finally, resources need support from the program staff in order to fulfill their role in the program. After their initial interview, they still need regular feedback about the outcome of their relationships with students. They need to be included in the program in as many ways as they want and can be used. They also need to be kept up to date about school events, successes and problems of the program, and how much their participation is valued by students and staff.

This study was designed to address certain basic questions concerning the nature and use of community-based learning resources and it has presented some conclusions about the utility of such resources. It has not been possible within the scope of the study to make any determination of the quality of the experiences at different sites, especially in relation to differing levels of site development. Further research is needed to consider resource-related student learning in greater depth. The design would have to include methodologies not used in the current study, such as examining project plans, observing site activities, evaluating student products and interviewing program participants. Such research should offer further evidence as to the utility of community-based learning resources.